

Production of α -amylase by *Aspergillus niger* NCIM 1342 from rice waste water using submerged fermentation technology

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Microorganisms have the ability to secrete enzymes when they are grown in the presence of certain substrates. Amylases are among the most important industrial enzymes and are of great significance in biotechnological studies. Amylases have potential application in a wide number of industrial processes such as food, fermentation, textile, paper, detergent and pharmaceutical industries. Starch is an important storage product of many economically important crops such as rice, wheat, maize, tapioca and potato. In the present study, α -amylase was produced from rice waste water by *Aspergillus niger* NCIM 1342 using submerged fermentation technology. Utilization of rice waste water as the substrate for amylase production reduces the production cost and disposal problem of organic wastes. Result showed that in submerged condition maximum α -amylase was produced when only rice waste water and distilled water was used in the ratio 3:1 after 3 days of incubation at 30°C.

Key words: α -amylase, *Aspergillus niger*, submerged fermentation, rice waste water
